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## ABSTRACT

The stressful effects of advanced academic training were examined in a comparison of six graduate and professional programs at Vanderbilt University. The focus was on the nonacademic, daily stressors and negative mood states of 152 students in medicine, business, divinity, graduate department of religion, and two graduate psychology departments. Additional comparisons were made between men and women, and married and single students. Study instruments included: the Hassles Scale, the Uplifts Scale, the Satisfaction Scale from the Flanagan Quality of Life Scale, the Anxiety and Depression Scales from Dupuy's General Well-Being Schedule, and the Positive Affect and Negative Affect Scales from the Oregon Quality of Life Questionnaire. Two departments reported significantly higher levels of negative mood: one of the psychology programs and the divinity school. Medical students reported the least negative mood. There were no departmental differences in daily stressors. Women reported more negative mood and more negative daily events than men, but they did not report fewer positive events or less global life satisfaction. There were no marital status differences. Overall, the level of negative mood was not high, and students reported a moderate but not extreme level of stress. (Author/SW)

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A Comparison

A Comparison of Graduate and Professional Students:

Their Daily Stressors

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Running head: A Comparison of Students

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### Abstract

The stressful effects of advanced academic training were examined in a comparison of six graduate and professional programs of Vanderbilt University. The focus was on the non-academic, daily stressors and negative mood states of 152 students in medicine, business, divinity, graduate department of religion and two graduate psychology departments. Additional comparisons were made between men and women, and married and single students. Two departments reported significantly higher levels of negative mood--one of the psychology programs and the divinity school students. Medical students reported the least negative mood, contrary to expectations. There were no departmental differences in daily stressors. Women reported more negative mood and more negative daily events than men, but they did not report fewer positive events or less global life satisfaction. There were no marital status differences. Overall, the level of negative mood was not high. Students reported a moderate but not extreme level of stress. Graduate and professional schools both take their toll on the daily lives of students, but students handle it fairly well.

### **A Comparison of Graduate and Professional Students: Stress in Their Daily Lives**

Stress, in the form of major life events, has been associated with negative mental and physical health outcomes (Holmes & Rahe, 1967). Advanced academic training can be considered a major life event (Valdez, 1982; Gopelrud, 1980), and some students experience adverse reactions in relation to advanced training, such as a greater number of accidents and illnesses (Stuart, & Brown, 1981), physiological changes (Kiecolt-Glaser et al., 1984), and increased alcohol use (Gardner, Wilsnack, & Slotnick, 1983). High levels of anxiety, depression, or simply a negative mood or outlook on life due to stressors may also be reasons to be concerned in that it diminishes the quality of life.

The majority of the research on stressors and advanced academic study has focused on medical students (e.g. Levin, & Franklin, 1984; Lloyd, & Gartrell, 1981, 1983; McMurray, Fitzgerald, & Bean, 1980; Mitchell, Matthews, Grandy, & Lupo, 1983) and some on psychology students (Carter, 1984; Gerson, & Lewis, 1984; Hirschberg, & Itkin, 1978; Knox, 1970). Not all academic programs are alike, however, and one frequent caution mentioned by researchers who have drawn their samples from one population of students is that other programs may have different effects and generalization from one program to another is limited.

Only a few studies have compared students in different programs to determine if the amount and source of stressors vary depending on the type of academic preparation. Sekas and Wile (1980) compared professionally-oriented medical students and science-oriented doctoral students with combined M.D./Ph.D. students; however, they did not report any results concerning comparisons between medical students and doctoral

students. They did find that students in the combined degree program reported more stressors than students in the two separate programs. This is not surprising given that combined degree students must meet both sets of requirements. In a study comparing medical students with other students enrolled in the other programs at the Medical University of South Carolina (Bjorksten, et al., 1983), all students reported similar areas and sources of stressors, yet medical students reported a higher intensity of stress. The other students included those in the dental, pharmacy, nursing, graduate, and allied health programs. Combining all these schools into one category may have obscured some of the differences. Heins, Fahey, and Leiden (1984) compared medical, law, and graduate chemistry and psychology students. In contrast to Bjorksten, et al., they found that total perceived stress scores were similar between medical, law, and psychology students, although these groups were significantly higher than chemistry students. However, the sources of stressors varied by department. The six graduate and professional school investigated in this study are the medical school, divinity school, business school, graduate department of religion, and two separate graduate psychology departments at Vanderbilt University.

In addition to differences by department, there may be differences due to the gender of the student. Much of the research reports a relatively consistent difference between men and women students. Women tend to report more stressors and greater levels of distress (Carter, 1984), role conflicts (Gilbert, Gallessich, & Evans, 1983), and self-doubt (Holmstrom & Holmstrom, 1974). Women are more likely than men to report emotional strain as a reason for dropping out of graduate school (Creager, 1971).

With the studies investigating gender differences in perceived stress, there is the difficulty of interpreting the differences as actual differences in the experience of stressors or merely a difference in awareness or willingness to report stress reactions. There is support for the view that women and men do have different experiences with advanced academic training. In a study designed to examine the differences in level of ambition between men and women students, Acker (1977) found that men and women have different experiences with the sequence of events in the course of graduate training. Acker identifies areas of conflict that women must deal with but men rarely face--such as the need to delay childbearing and the awareness that someday one's own career may be subordinated to a spouse's career. Holmstrom and Holmstrom (1974) found that negative faculty attitudes and poor interactions contributed significantly to the strain of women students, even after controlling for academic ability, financial worries, and family demands. These data from Acker (1977) and Holmstrom and Holmstrom (1974) indicate that women do experience more stressors in graduate school than men.

Marital status has also produced varying perceptions of stressors. In a longitudinal study of married and single medical students, married students reported a lower level of stress, and those who got married during medical school reported a lower level of stress after their marriage (Coombs, & Fawzy, 1982). Married students have also reported fewer problems with interpersonal situations (Bjorksten, et al., 1983; Levin, & Franklin, 1984). They also complete their degrees more frequently than single students (Knox, 1970). The general explanation is that a spouse provides an external source of support (Coombs, & Fawzy, 1982). However, the married students being studied were predominantly men.

Marriage may increase demands and conflicts for women. Radloff (1975) examined the mental health of women and men in a non-clinical population in relation to marital status and occupational status. Her results showed a gender by marital status interaction, with married men having the best mental health. Never-married and widowed men were more depressed than never-married and widowed women. Being employed did not seem to alleviate the depression of married women, rejecting the notion of the unfulfilled housewife as a uniquely depressed group of women. In two reviews of studies of marital status, gender, and mental illness, Gove (1972, 1979) found that there was a relatively consistent finding among married individuals, with higher rates of mental illness being reported for women compared to men. Among the other marital status categories, the tendency was for men to report higher rates of mental illness than women.

### Sources of Stressors

Most of the research on stress in graduate and professional training has focused on the unique stressors associated with advanced schooling. Studies of medical students indicate a high level of stress associated with (a) the inability to master all the material (Lloyd, & Gartrell, 1983; Linn & Zeppa, 1984; Vitaliano, Russo, Carr, & Heerwagen, 1984), (b) emotional stress from initial experiences with cadavers, death, dying, and abortion (Rosenber, 1971), (c) the lack of support from faculty members (Robbins, Robbins, Katz, Geliebter, & Stern, 1983; Weinstein, 1983) and (d) the poor quality of faculty/student relationships (Huebner, Royer, & Moore, 1981). Law students rated infrequent exams and peer competition as major sources of stress and graduate chemistry students rated too frequent exams as most stressful (Heins, Fahey, & Leiden, 1984). Gopclrud (1980) found that three-fifths of the stressful life events reported by graduate

psychology students in the first six months of school were related to the academic setting.

In addition to the stressors specific to advanced academic training, students also have lives beyond their immediate school environments, and within this area of their lives are also potential stressors--stressors that may be diminished, intensified, or created by the academic aspect of their lives. Far fewer studies have focused on this source of stress. Rather than the unique stressors of being a student, the focus of the present study is to examine how advanced academic training impacts on daily stressors and how these daily stressors are related to negative and positive mood states.

Stressors are measured in three ways in this study. The first is the presence of negative daily events. The second is the absence of positive events. Kanner, Kafry, and Pines (1978) found that the absence of positive events or features was a significant predictor of tedium, life satisfaction, and job satisfaction, independent of negative events or features. Students experience a great deal of overload and stimulation in their academic lives and the circumstances of graduate and professional school may limit the opportunities for positive conditions or events, such as comfortable homes, sufficient funds, family life, and vacation time.

Kanner, Coyne, Schaefer, and Lazarus (1981) based on the idea that the process by which major life events increase the risk of illness is the impact of these events on the daily routine of life, developed and tested the Hassles Scale and its companion measure, the Uplifts Scale. These two scales measure daily annoyances and pleasures,

respectively. They found that the Hassles Scale was a better predictor of psychological symptoms than a life events measure similar to the Social Readjustment Rating Scale (Holmes, & Rahe, 1967) as did Monroe (1983). These are the two scales used to measure the daily negative and positive events of students in this study.

In addition to daily problems and joys, global dissatisfaction with particular areas of life is considered an indication of unmet needs, such as those reported by Levin and Franklin (1984). Dissatisfaction with a particular area is considered the third indicator of stressors. Flanagan (1978) has developed a comprehensive set of 15 domains of life. Individuals rate the degree of satisfaction that they feel with each area. This scale is the third measure of stressors.

Different academic programs may have a differential impact on students' daily lives, perhaps due to the characteristics of the demands placed on those students, the nature of the education process, and the future of the field. Individuals within each program may also experience different levels of stressors and negative mood states depending on whether they are women or men, and married or single. The present study compares the level of stressors and positive events in the daily lives of students by department, gender, and marital status. It also examines the relationship of mood state to the stressors.

## Method

### Participants

The participants in this study were students from the first- and second- year classes of the medical school, divinity school, the graduate program in religion, a random

sampling of the two-year business school, and all the students in the two graduate programs in psychology at Vanderbilt University. The total number of students sent questionnaires was 707--205 medical students, 200 business students, 85 divinity students, 49 religion students, 68 Arts and Science (A&S) psychology students, and 100 Psychology and Human Development (P&HD) students. A total of 165 questionnaires were returned, with differential response rates from each of the schools. From the medical school, 45 students returned questionnaires (22%). Nineteen divinity students (22%), 8 religion students (16%), 22 business students (12%), 17 A&S psychology students (24%), and 52 P&HD students (52%) returned questionnaires.

There were only 11 divorced students and one separated student who returned questionnaires. These participants were not used in the analyses because they differed significantly, using a liberal level of significance ( $p < .25$ ), from the single students and could not be combined with them to create a non-married group. One other participant did not respond to the question regarding marital status and was not included in the analyses. Therefore, analyses were conducted using the 152 remaining single and married students. There was a total of 76 men and 76 women, 113 single students and 39 married students.

### Measures

*The Hassles Scale.* This scale, developed by Kanner, et al. (1981), lists 117 daily irritants or pressures. The items are drawn from areas such as finances, interpersonal relationships, work, and home life. Participants in this study were asked to circle the items that had bothered or irritated them in the past month. In addition, three spaces were provided for them to list any hassles that were not covered in the scale. The

number of items circled or added to the list were counted to produce a total score.

*The Uplifts Scale.* This scale is the companion measure of the Hassles Scale. It consists of 135 items drawn from areas similar to the Hassles Scale that may be a source of pleasure or joy. Participants were asked to circle an item if it represented an uplift that they had experienced in the past month. Four spaces were provided for them to add any additional uplifts. Items circled were counted to produce a total score.

*The Satisfaction Scale.* This measure is part of the Flanagan Quality of Life Scale in which the level of satisfaction is rated on a scale of 1 to 5 for each of 15 domains of life (Flanagan, 1978). Participants were asked to rate their satisfaction or dissatisfaction with each of the 15 domains. The internal reliability coefficient found in this study was .85. Certain items, such as one item concerning the raising of children, did not apply to many participants and were not answered. Therefore, rather than simply adding item scores, the total satisfaction score is an average of the scores on the answered items, multiplied by 10 for easier interpretation.

*The Anxiety Scale.* This measure consists of the four items measuring tension and anxiety of Dupuy's General Well-Being Schedule (cited in Fazio, 1977). The internal reliability coefficient found in this study was .82. Three of the items have a 6-point rating scale and the fourth item has a 10-point scale. All the items were standardized and added together for a total anxiety score.

*The Depression Scale.* This measure consists of the four items of the General

Well-Being Schedule that were designed to measure self-reports of depression. The internal reliability coefficient was .84. Three items have a 6-point rating scale and the fourth has a 10-point scale. These items were standardized and added together for a total depression score. Both the Depression and Anxiety scales were presented to participants as one measure, with the items mixed together.

*The Positive Affect Scale.* This measure consists of 10 items from the Oregon Quality of Life Questionnaire (OQLQ) developed by Brodsky, et al. (cited in Carter, 1984) designed to measure positive feelings. Items are rated on a 4-point scale regarding how frequently an individual has experienced the feeling in the past month. Scores on the items were summed for a total positive affect score. The internal reliability coefficient was .88.

*The Negative Affect Scale.* This scale consists of nine items of the OQLQ measuring frequency of negative feeling in the past month. The same 4-point rating scale of the Positive Affect scale is used. In addition, three items regarding behavioral difficulties in the areas of sleep, appetite, and indigestion are included on this measure because they appear as items in the original OQLQ Distress Scale. Scores on the items were summed for a total negative affect score. The internal reliability coefficient was .81 both with and without the three behavioral difficulty items; therefore, the items were left as part of the scale to maintain the psychometric properties of the original scale. Both the Positive and Negative Affect scales were presented to participants as a single questionnaire, with the items intermixed.

## Procedure

Students were sent questionnaire packets, that included all measures, demographic question page, and a cover letter through the campus mail as part of an assessment of the quality of life of graduate and professional students. They were requested to complete and return the questionnaires within a week. The packets were distributed during the middle of spring semester. After the one week period had passed, reminder notices were placed at key point on campus. All responses were anonymous.

## Results

The alpha level was set at .10. This is a somewhat more liberal significance level than is usually chosen. However, given the small cell sizes and the generally stressful nature of all advanced academic training, in order to detect differences a less stringent alpha level was considered necessary. Ninety percent confidence was considered acceptable. Examination of the distribution for each variable revealed that the Hassles variable and the Negative Affect variable were significantly positively skewed. Therefore, these two variables were transformed using a square root transformation.

Pearson product-moment correlations revealed that the mood variables were fairly highly correlated with each other, so a total negative mood variable was created. Negative Affect, Depression, and Anxiety were added together and Positive Affect was subtracted because it was negatively correlated with the others. The alpha reliability of this scale was .87. The correlations of this composite variable with Total Satisfaction, Hassles, and Uplifts were -.51, .40, -.42, respectively. All are significant at the .001 level. Analyses were conducted using this variable as the mood variable. The stressor variables were significantly correlated with each other, but the sizes of the correlations

are not large. Total Satisfaction was correlated .38 with Uplifts and -.30 with Hassles. Hassles and Uplifts were correlated .29.

### Analyses of Variance

Six by two by two ( $6 \times 2 \times 2$ ) analyses of variance (ANOVA) were run using unweighted means, due to unequal cell sizes. The factors were Department by Gender by Marital Status. Due to empty cells in the complete design, three-way interactions were not meaningful (Keppel, 1982).

There was a Department main effect for Uplifts ( $F(5,124)=2.01, p<.10$ ), and Negative Mood ( $F(3,115)=3.05, p<.05$ ). There were no significant departmental differences for Hassles and Total Satisfaction. Post Hoc analyses, using the Least Significant Difference test, indicated that for Uplifts, the only significant difference was between P&HD and business students. Means for each department are reported in Table 1.

For Negative Mood, medical students reported significantly less total negative affect than divinity students, A&S psychology students, and P&HD students. Divinity students and A&S psychology students were not significantly different from each other; however, A&S psychology student reported more total negative mood than religion students, business students, and P&HD students. Divinity students and P&HD students reported significantly more negative mood than religion students (See Table 1 for means).

(Insert Table 1 About Here)

There was a Gender main effect for Hassles ( $F(1,133)=3.67, p<.10$ ) and Negative Mood ( $F(1,115)=11.22, p<.01$ ) Women ( $M=4.98$ ) reported more hassles than men ( $M=4.13$ ). The means reported are transformed data. Women ( $M=0.95$ ) reported a higher level of negative mood than men ( $M=-1.06$ ). Uplifts and Total Satisfaction showed no Gender main effects.

There were no marital status differences nor gender by marital status interactions.

### Regressions

In order to have a clearer picture of how stressor variables were related to mood, stepwise regressions were run with Negative Mood as the criterion and Total Satisfaction, Hassles, and Uplifts as predictors. Regressions were run separately for men and women in order to examine possible reasons for the higher level of negative mood for women.

All three stressor variables entered as significant predictors for men. Total Satisfaction entered at Step 1, then Hassles at Step 2, and finally Uplifts at Step 3. For women, only Uplifts and Hassles entered at Step 1 and Step 2, respectively. Total Satisfaction was not a significant predictor for women. Uplifts had the strongest beta weight for women. Hassles had the strongest beta weight for men. The regression summary is reported in Table 3.

(Insert Table 2 About Here)

## Discussion

### Relationships Between Variables

As would be expected, negative mood and negative events were positively correlated, and positive events and negative mood were negatively correlated. Hassles and Uplifts were positively correlated, although the magnitude of the correlation was not large. This finding is similar to Carter's(1984) findings in her study of graduate psychology students and counseling students, and to the original work with the Hassles and Uplifts scales (Kanner, et al., 1981). This moderate positive correlation could indicate that there are some individuals whose affect is more sensitive to daily happenings, both negative and positive, such that more events are reported as hassles and uplifts. In other words, to identify some event as a hassle or an uplift one must experience some degree of affective response to it, and some individuals respond to more events affectively; therefore, these individuals check more hassles as well as more uplifts, resulting in a moderate positive correlation between the two. This individual difference in responding to these kinds of scales has frequently been cited as a great difficulty with research on stressors. There are those who advocate a more objective approach to determining stressors (i.e. Dohrenwend & Shrout, 1985), and others believe that it is impossible to separate stressors and cognitive evaluations of an event or circumstance (i.e. Lazarus, 1984). One of the focuses of the present study was to investigate the individual differences in perception of stressors and their relationship to more global mood states; therefore, this "problem" is not an issue. Why certain individuals perceive more events as stressors and uplifts and how they make their evaluations is beyond the scope of this study.

### Differences Between Departments

This study focused on the impact of different advanced academic programs with different educational processes on the daily stressors and response to stressors of the students in each of those programs. If one of the processes through which major stressful events affect mental and physical health is through the influence they have on the more minor daily irritants and pleasures, then programs that are perceived as the most stressful would be those that have the greatest impact on daily events. Because medical training is commonly considered one of the most stressful programs, one would expect medical students to report the most negative mood and the greatest number of stressors. This expectation was not supported. As a matter of fact, medical students reported the lowest levels of distress and significantly less than three of the other schools-- divinity and the two psychology departments. Medical students did not differ significantly from any of the other schools on number of uplifts, the only other variable with a department main effect. These results concur, in part, with those of Heins, Fahey, and Leiden (1984), who found that although the source of stress varied by department, the level of stress was not greater for medical students. They studied different departments than those in the present study and focused mainly on academic stressors; therefore, the two studies cannot be compared directly. The results of this study disagree with those of Bjorksten, et al., (1983), who found similar areas of stress but greater intensity for medical students.

One explanation for medical students reporting less negative mood than other students may be that the screening process for medical school in terms of handling stress is much more stringent than for other departments. This, however, is speculative.

Another point is that people may select programs that they feel they can tolerate the best. For example, one person may not find memorization difficult or stressful and choose medical school; whereas, another individual may not have difficulty with self-imposed deadlines and choose graduate school.

The two most distressed groups of students are A&S psychology students and divinity students. Interestingly, A&S psychology students were significantly more distressed than P&HD students, who probably have the most similar training experience, and divinity students also are more distressed than the individuals with whom they share similar experiences, the religion students. Different departments studying the same or similar content within the same school should not automatically be combined into one group and assumed to be alike. This result was also found by Carter (1984), who compared psychology graduate students and counseling students in the same department and found them to be significantly different.

In speculating on possible reasons for the differences, it is important to remember that for all but the PH&D department the return rate was very low; therefore, it is very likely that the sample is quite select. It is possible that those students who had the time to fill out the questionnaire were less stressed and distressed than those who did not have the time. However, it is also possible that those for whom the questions were most salient were more inclined to complete the survey. In this case, those schools and departments with lower return rates may have the more distressed students over-represented. This may be the case for the difference between A&S psychology and P&HD. The P&HD sample may be more representative given the higher response rate

and the A&S psychology sample may have the more distressed students over-represented. Since both divinity and religion had low response rates, it is difficult to say that one was more representative of the population than the other.

Given that women had higher levels of negative moods than men, the percentage of women responding may account for the differences between these departments. Women from the religion department were over-represented by almost two and a half times the percentage of women in the department; whereas, the percentage of women responding from the divinity school was closer to the actual percentage of women in the department. Therefore, the difference between religion and divinity are *opposite* what would be expected if this were the reason for one department having a higher level of negative mood. Both the A&S psychology department and the P&HD department had more women than men responding, making this an inadequate explanation for these two departments as well.

More specific stressors could account for the differences. For example, For the religion and divinity departments, one possible explanation might be the issue of ordination for women in divinity school. This is a unique and substantial stressor for women in this field. Depending on the denomination, some women may be preparing for the ministry with very poor prospects for a position once they have completed their studies. This is less of an issue for women in the religion department. So in spite of the lower percentage of women responding for divinity, their distress level may be higher than women in religion and may account for some of the difference. In conversations with students from the A&S psychology and PH&D departments, faculty/student

relationships were frequently mentioned as a significant problem by A&S psychology students than by P&HD students.

The impact of different programs on the daily stressors and positive events as well as global ratings of satisfaction is not different except in one small case. Business students report fewer uplifts than P&HD students. However, in this comparison the sample size of each group is very different. Other departments reporting more uplifts than P&HD students and having sample sizes more similar to that of the business students were not significantly different from business students. Business students reported approximately 6 to 12 fewer uplifts than the students in the other departments. Business students appear to be experiencing fewer positive events and conditions, a difference that may have been significant if the sample sizes had been larger. This lack of positive events did not seem to be associated with a higher level of negative mood states because they were not significantly different from the other groups on the separate negative mood variables and reported significantly *less* total negative mood than the A&S psychology department. They may have fewer opportunities to interact with other individuals in a helping capacity as many of the other students do. Several of the items on the Uplifts scale refer to such things as giving advice and being a good listener. Students in medicine, psychology, and divinity have more opportunities for this sort of thing than those in business. The lack of impact on the mood states of business students may be due to this kind of uplift being less important to them.

#### **Differences between Men and Women**

Women reported more negative mood and more negative events than men. This finding is similar to that of numerous other studies of women students as well as non-

student women. This study suffers from the same problem of being unable to interpret this difference as an actual difference in experience or merely one of willingness to report negative feeling states and stressors.

Several points need to be considered when interpreting this finding. First, with respect to the number of hassles, the variances on this scale for men and women were significantly different, violating the assumption of homogeneity of variance necessary for an accurate interpretation of an ANOVA. Women varied considerably more than men on this scale. However, this is a minor point because the sample sizes were almost equal and the ANOVA test is robust (Keppel, 1982). In addition, there are certain items (e.g. menstrual problems) that only apply to women and therefore, may increase the mean for women. Other items are far more likely to be experienced by women than men, in spite of being worded in such a way as to include men (e.g. job discrimination). Also, the difference between the means of the two groups is not great. The positive point to remember is that neither men nor women report experiencing more than one-fifth of the hassles listed. In spite of reporting a few more hassles, women do not differ from men in number of positive events or conditions or in their total satisfaction with life domains.

Perhaps women score higher on negative mood state scales because of more fluctuations in affect. They are not necessarily chronically more depressed or anxious than men, but rather have more experiences with these emotions but do not experience them for long periods of time. This interpretation can be supported by taking a look at the set of responses for the Negative and Positive Affect scales. The responses deal with how *frequently* one has experienced a particular emotion or feeling in the last month.

Also, one of the items on the Depression scale has a response indicating fluctuation in affective state, which is scored as more negative than the next response of being "in good spirits mostly". A check on the distribution of responses revealed that women check the fluctuation response most frequently and men checked the "in good spirits mostly" response more often. This is only one item and cannot explain all of the difference between men and women on this scale, but it is a good example of the importance of examining the set of responses given to participants in studies and the need for careful interpretation.

The regressions run for men and women separately also produced an interesting pattern. The number of positive events was the best predictor for women, followed by the number of negative events. Global feelings of satisfaction with life conditions were not a significant predictor. It appears that there is a stronger relationship between daily events and mood states in the lives of women students, particularly the presence or absence of positive events, than global satisfaction. This could account for more fluctuations in affect because daily events vary more than global satisfaction or dissatisfaction. For men, all three stressor variables were significant predictors: however, global satisfaction entered first, accounting for the largest amount of variance.

Once again, it is necessary to point out that the effect sizes are small. Given that women probably do experience more stressors and stressors of a different kind than men (Acker, 1977), the lack of a large difference in negative mood state can be viewed as a positive reflection on women students' abilities to cope. One further point to be considered is that not all reactions to stressors take the form of negative mood states.

Perhaps men respond to stressors in another way such as alcohol or drug abuse (Garner, et al., 1983; Weisman & Klerman, 1977). The questionnaires of this study did not explore that dimension of behavioral responses to stressors.

The most obvious limitation of this study is the select sample. First, it is selective in that all students are from one university. Second, the response rate was not high making it difficult to determine if within this university a normative sample had replied. Those who found the research interesting and relevant may have been the ones most likely to participate. However, from the additional comments received on the survey, some individuals who found the research unnecessary replied as well as those who found it interesting and important. The selective sample problem is probably most profound in the divinity and religion departments given the large percentage of women who responded. Another limitation is the correlational nature of the study. Causal interpretations are impossible. Finally, the lack of a non-student comparison group limits the conclusions that can be drawn from this research. Whether students in advanced training suffer more or less stressors and negative mood states than a group of non-student, young, upwardly mobile professionals is an interesting question, but cannot be determined from these data.

Up to this point, most of the stress research on students has focused on stressors specific to the academic setting. This study indicates that it is important to consider the normal, everyday lives of students as well in order to identify the sources of stress. A fair amount of the variance in mood states could be explained by the experience of everyday events--positive and negative. As this study indicates, it is very important to

consider the absence of positive events in the investigation of stressors. This aspect of stressors is frequently ignored in the research. For individuals who are under a considerable level of stress, positive events may become even more important.

The level of stress-related, negative mood state is above the midpoint of the scales, but apparently it is not extreme. This is encouraging. It may also reflect, however, the general ability of this group of people to handle high levels of demands and pressures. They may also be unwilling to acknowledge the actual level of stress that they are experiencing. It is also important to remember the individuals at the extreme. Assuming that all students are coping well because most students are is a dangerous assumption. Students whose scores are outliers should be carefully looked at to determine where the difficulty lies.

With regard to the issue of generalization across different graduate and professional programs, overall there are some marked similarities, although some differences as well. Most of the variation between departments was due to two groups--divinity and A&S psychology. More investigation is needed to determine why these two departments were different. It seems that the experience of advanced training, in spite of different educational processes, is relatively similar for most students with respect to the variables investigated in this study. However, there was enough variation that generalization across departments should be made with caution.

Further research in this area should include comparisons between different universities and comparisons with non-student populations. Additionally, an analysis of

the structure of the stressors--daily hassles and uplifts and total satisfaction--could produce some differences between departments, genders, and marital states. Finally, a comparison of which is the better predictor, academic or non-academic stressors, of negative mood states would be of interest. Perhaps one has a greater influence on one type of emotion and the other on another type. For example, academic stressors predict anxiety, but non-academic stressors affect depression.

In summary, advanced students in different programs appear to be more similar than different, and they handle the stressors in their daily lives fairly well without an inordinate degree of negative mood states. Women appear to experience more stressors and more negative moods, but the differences are not large. They do not, however, suffer less positive moods or fewer daily uplifts as result. Married men are better off than the other groups, but married women are not any worse off than single women. Graduate and professional school exacts its price with respect to stressors and related mood states, but most students handle it fairly well.

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Table 1

## Department Means for Negative Mood and Uplifts

|          | Negative Mood       | Uplifts             |
|----------|---------------------|---------------------|
| Medicine | -1.07 <sub>a</sub>  | 42.98 <sub>ab</sub> |
| Religion | -2.01 <sub>a</sub>  | 48.75 <sub>ab</sub> |
| Business | -0.40 <sub>ab</sub> | 37.25 <sub>a</sub>  |
| P&HD     | 0.26 <sub>bc</sub>  | 46.96 <sub>b</sub>  |
| Divinity | 1.18 <sub>cd</sub>  | 48.00 <sub>ab</sub> |
| A&S      | 3.07 <sub>d</sub>   | 43.73 <sub>ab</sub> |

Note. Scores with similar subscripts are not significantly different.

Table 2

## Regression Summary with Negative Mood as Criteria

| Variable    | Step | r    | $\beta$ | Men    | Change $r^2$ |
|-------------|------|------|---------|--------|--------------|
|             |      |      |         | t      |              |
| Total Sat.  | 1    | -.59 | -0.36   | -3.81* | .33          |
| Hassles     | 2    | .44  | 0.58    | 5.92*  | .14          |
| Uplifts     | 3    | -.33 | -0.42   | -4.01* | .11          |
| $R^2 = .58$ |      |      |         |        |              |

F=28.19\*

| Variable    | Step | r    | $\beta$ | Women  | Change $r^2$ |
|-------------|------|------|---------|--------|--------------|
|             |      |      |         | t      |              |
| Uplifts     | 1    | -.59 | -0.69   | -8.06* | .34          |
| Hassles     | 2    | .30  | 0.50    | 5.60*  | .19          |
| $R^2 = .53$ |      |      |         |        |              |

F=39.10\*

\*p&lt;.001